

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 30 JUN 2006

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Applicant's or agent's file reference 1197-1-WO	FOR FURTHER ACTION See Form PCT/PEA416	
International application No. PCT/IT2005/000151	International filing date (day/month/year) 22.03.2005	Priority date (day/month/year) 07.04.2004
International Patent Classification (IPC) or national classification and IPC INV. B26D7/06 B26D7/18		
Applicant PERINI, Fabio et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 22.06.2005	Date of completion of this report 30.06.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer Rabolini, M Telephone No. +31 70 340-2854 	

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/IT2005/000151

Box No. I Basis of the report

1. With regard to the **language**, this report is based on
- ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-16 as originally filed

Claims, Numbers

1-9 received on 29.06.2005 with letter of 04.06.2005

Drawings, Sheets

1/13-13/13 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☒ the claims, Nos. 10
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/IT2005/000151

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/IT2005/000151

Re Item V.

- 1 Reference is made to the following document:
D1 : US 4 558 617 A (BOELEN ET AL) 17 December 1985 (1985-12-17)

- 2 CLAIMS 1 to 9

The combination of the features present in independent claim 1 and in the dependent claims 2 to 9 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows: the prior art does not disclose a second set of guide blades/vanes arranged diametrically opposite the first guide blades, and mounted on respective conveying means. Thus the subject-matter of these claims is novel.

The problem to be solved may be viewed as how to transport the logs with a limited amount of clamping forces acting on the log.

The solution provided in these claims allows the clamping forces acting on the "soft" deformable log to be distributed between up to four contact points around the circumference of the web roll. Thus the subject-matter of these claims satisfies the requirements of Article 33(3) in terms of inventive step.

1197-1-WO

CLAIMS (AMENDED)

1. Device for the handling of logs, especially within a trimming machine, comprising handling means for logs along a path developed between an entrance section (I) of the logs (3) to be trimmed and an exit section (U) of the trimmed logs (3'), with blades (10, 11) set along said path and intended to provide the trimming of the logs (3), said handling means of logs also constituting means of holding or blocking the logs along said path, characterized in that said handling and blocking means of logs are comprised of two series (H; K) of guide blades (6, 7, 8, 9; 6', 7', 8', 9') set on opposite sides of the path followed by logs, said two series (H, K) of guide blades being subdivided into a first and a second group (J, L) set on opposite sides of a vertical plane (Q), so that the guide blades of a same series (H, K) and of a same group (J, L) form two subgroups of guide blades which are set on opposite sides of the cutting plane (TJ, TL) of a corresponding blade (10, 11), said guide blades being mounted onto respective conveying means (60, 70, 80, 90, 60', 70', 80', 90') along said path followed by the logs, and the guide blades of each series (H, K) engaging the logs diametrically opposite the guide blades of the other series (K, H).
2. Device, according to claim 1, characterized in that, at least in correspondence of said blades (10, 11), said guide blades (6, 7, 8, 9, 6', 7', 8', 9') block the logs both externally and internally to said cutting planes (TJ, TL).
3. Device, according to claim 1, characterized in that said conveying means (60, 70, 80, 90, 60', 70', 80', 90') with the guide blades (6, 7, 8, 9, 6', 7', 8', 9') are made of endless belts put onto corresponding pulleys (600, 700, 800, 900, 600', 700', 800', 900') which are assembled onto respective shafts interlocked with a corresponding

1197-1-WO

motor.

4. Device, according to claim 1, characterized in that the guide blades (8, 9, 8', 9') of the second series (K) are set onto respective mobile supports (180, 17) allowing the adjustment of distance from the guide blades (6, 7, 6', 7') of the first series (H) in relation to the diameter of the logs to be treated.

5. Device, according to claim 1, characterized in that the guide blades (6, 7, 8, 9) of the first group (J) may be moved closer to or further apart from the guide blades (6', 7', 8', 9') of the second group (L) in relation to the length of the logs to be treated.

6. Device, according to one or more of claims 1-5, characterized in that the guide blades (8, 9, 8', 9') of said second series (K) and the guide blades (6, 6') of said first series (H) external to the cutting planes (TJ, TL) are all of the same width, whereas the guide blades (7, 7') of the first series (H) included between the cutting planes (TJ, TL) are of a greater width than the others.

7. Device, according to one or more of claims 1-6, characterized in that each of said guide blades (6, 7, 8, 9, 6', 7', 8', 9') exhibits a concavity, in that the guide blades (8, 9, 8', 9') of the second series (K) are mounted onto the corresponding belts so that, when they result in the space travelled by the logs (3), the respective concavities face towards the exit front (U) of the trimmed logs (3'), and in that the guide blades (6, 7, 6', 7') of said first series (H) are mounted onto the corresponding belts so that, when they result in said space, the respective concavities face towards the entrance front (I) of the logs (3) to be trimmed.

8. Device, according to one or more of claims 1-7, characterized in that said second group (L) of guide blades is integral with a fixed structure comprising of

1197-1-WO

two fixed sides (1) and connected to each other by girders (2), and in that said first group (J) of guide blades is integral with a structure (4, 5) which is mobile in relation to the fixed one, resting on the girders (2) and
5 interlocked with movement means (500, 501, 502, 503) which control its traverse movement parallel to the same girder(2) on which it rests.

9. Device, according to one or more of claims 1-8, characterized in that, during the phase in which the guide
10 blades of said second series (K) move closer to or further apart from the guide blades of the first series (H), the guide blades of the second series (K) consequently move forwards or backwards.

15